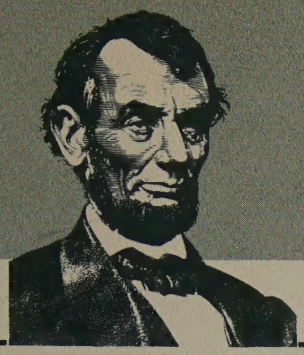


Lincoln Lore

Bulletin of The Lincoln National Life Foundation . . . Dr. R. Gerald McMurtry, Editor
Published each month by The Lincoln National Life Insurance Company, Fort Wayne, Indiana

Number 1439 FORT WAYNE, INDIANA January, 1958

A. LINCOLN
MANNER OF BUOYING VESSELS

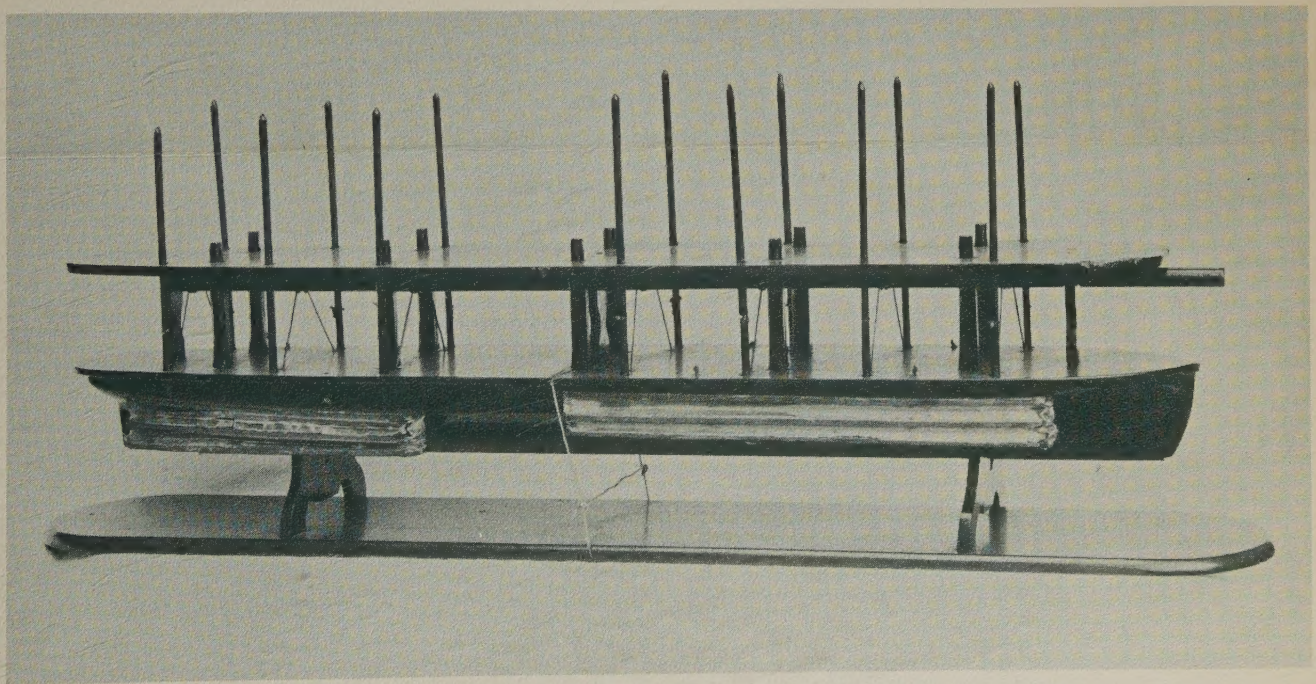
No. 6,469 **Patented May 22, 1849**

Abraham Lincoln was interested in shallow water navigation. He had considerable experience as a boatman and he knew of the many vexations and delays caused by boats being stranded for days at a time on unseen shoals in the lakes and rivers. Then, too, his six years' (1831-1837) residence at New Salem, Illinois, on the Sangamon River, had convinced him that if that stream was to become an artery of travel the vessels engaged in the river traffic would have to lift themselves over the sand bars, so to speak, by their own bootstraps.

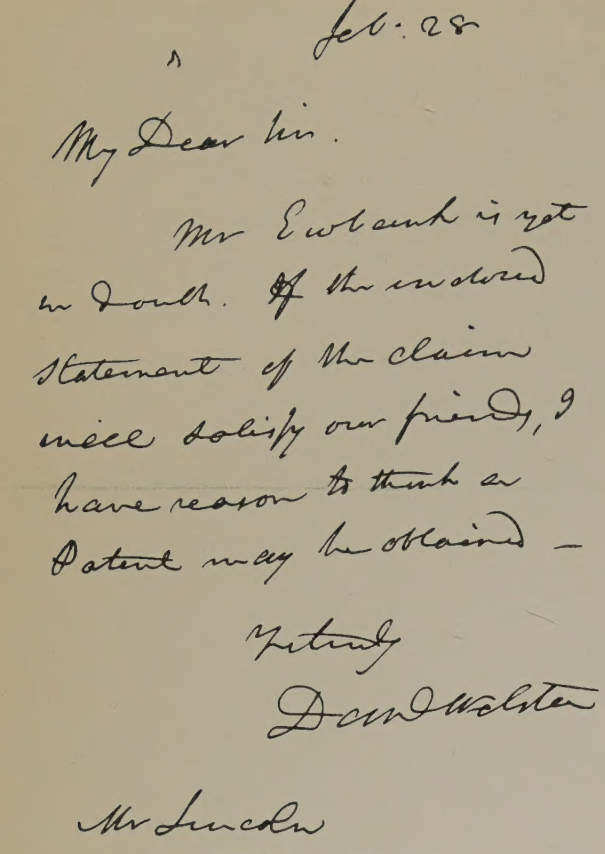
This lesson was further demonstrated in 1848 when Congressman Lincoln traveled by steamer from Buffalo to Detroit. Enroute, the Lake Erie steamer became grounded on a sand bar. The captain, applying a simple law of physics, met the crisis. He ordered all hands to force barrels under the side of the ship below the water line. In recalling the incident it was said that "slowly but surely the boat began to rise." Lincoln watched the entire proceedings intently and the tradition further relates that "taking a piece of paper from his jacket, he sat down, placed it on top of his high hat and began to make some sketches."

Upon reaching home Lincoln determined to incorporate the same principle he had seen the ship captain employ, in an apparatus that would be soundly practicable and readily applicable. He secured the help of Walter Davis, a mechanic who had a wood working shop near the Lincoln-Herndon law office, to help him devise a carefully finished model, that would be symmetrical in its parts. Davis had materials and tools and he assisted Lincoln in his scientific project. The device was ingenius with an odd system of pulleys, bellows, poles and ropes. Apparently Lincoln spent a lot of time on the eighteen inch model, whittling on it, scraping it with glass, rubbing it down with emery paper and all the while trying to visualize how it would revolutionize river and lake navigation. The finished product was a long and graceful river-boat, through whose outer decks, from stem to stern, on both sides, were inserted vertical poles attached at their lower ends to horizontal bellows running beneath the lower guards near the water. Lincoln estimated that one inch of the lifting power of his model's buoyant chambers would represent one foot on a regular size steamboat.

Gaines Paddock of Springfield recalled how "Abraham Lincoln came into John Williams' store on the north side of the square, which was the town's loafing place and where I was clerking during the summer and stated that he believed he had solved the problem. He declared the Sangamon River was navigable and told us all to



Patent Office model made by Abraham Lincoln and Walter Davis illustrating the method of lifting vessels over shoals, patented May 22, 1849, Number 6,469. Now exhibited at the Smithsonian Institution. See Lincoln Lore Number 843, June 4, 1945.



Feb. 28

My Dear Sir.

Mr Eubank is yet in South. If the enclosed statement of the claim will satisfy our friends, I have reason to think a Patent may be obtained —

Yrs truly

Dan'l Webster

Mr Lincoln

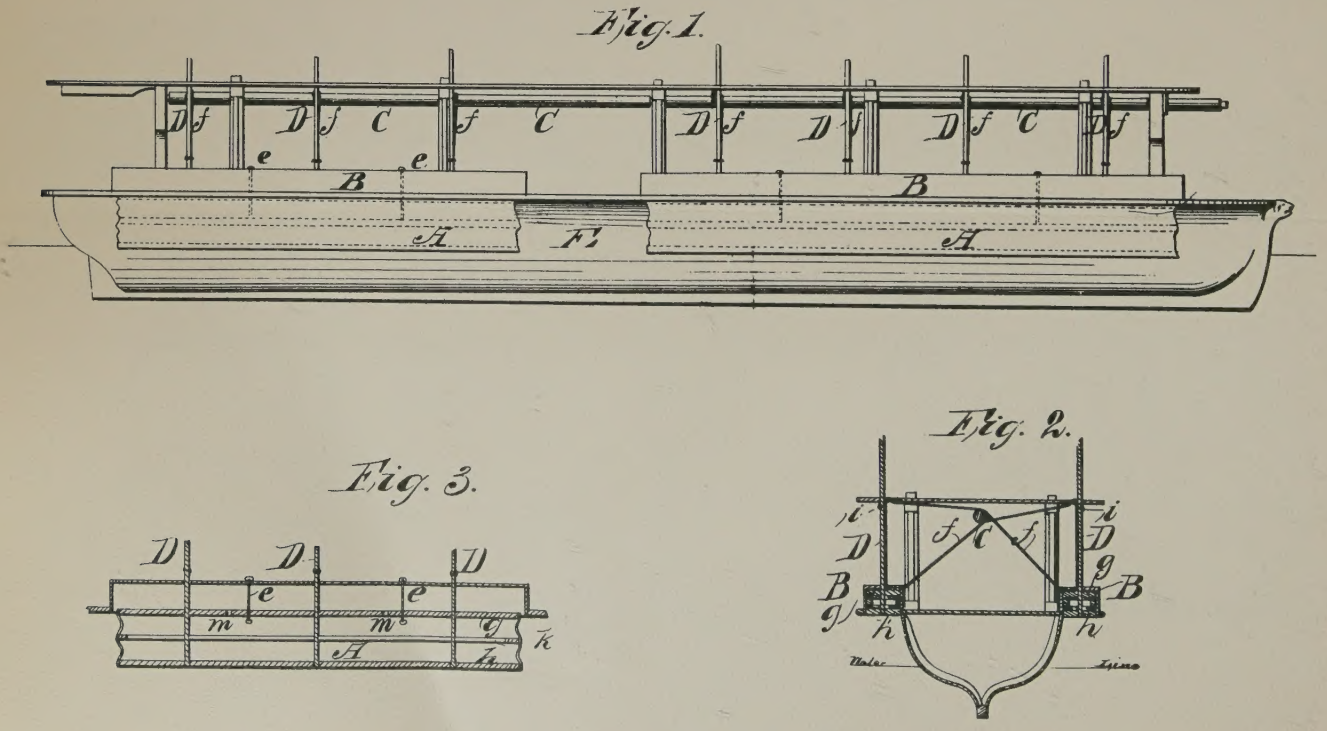
Daniel Webster to Mr. Lincoln
Original Letter in Western Reserve Historical Society, Cleveland, Ohio
See Lincoln Lore, No. 889. April 22, 1946.

come over to the square the next day and he would prove his statement. Promptly at the time he had named, Lincoln walked into the place where the crowd had assembled, carrying under his arm a small boat model, which he placed in one of the public watering troughs, situated at each corner of the square. Placing bricks in the boat he sank it to the gunwalls and then using bellows blew air into compartments. As a result the boat and its load were lifted several inches higher in the water. He then explained the procedure to the people stating that if a sand bar were encountered all that need be done was to fill the compartments with air. Picking up the boat model he turned and walked away leaving the people arguing on the method of the plan."

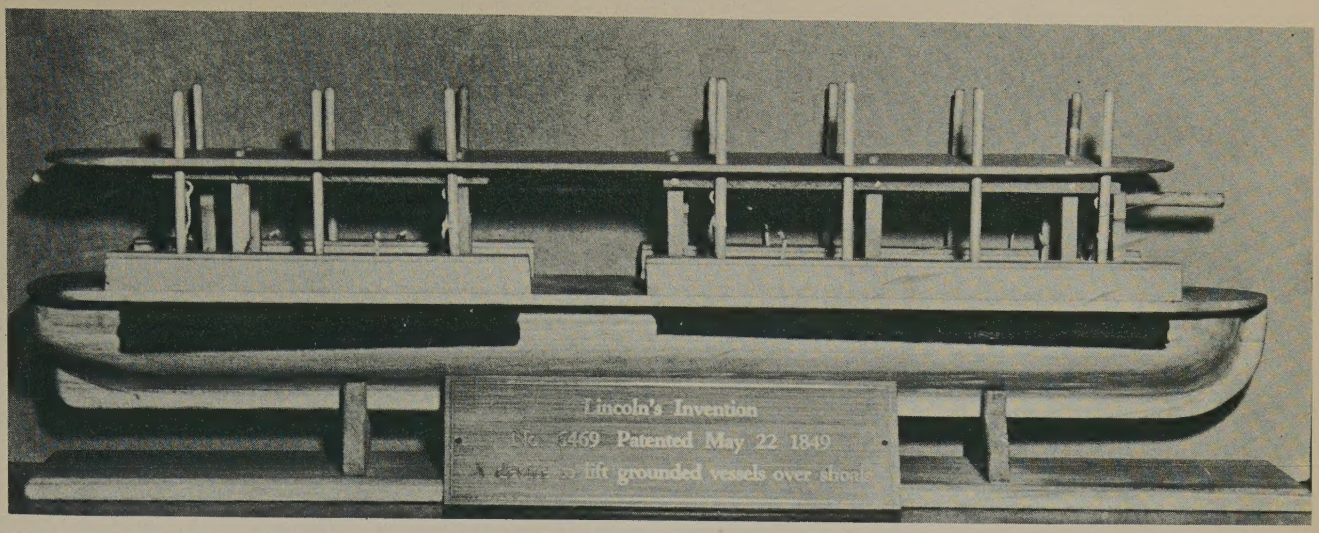
During the early months of 1849 it is believed that Abraham Lincoln wrote Daniel Webster regarding his invention. Perhaps Lincoln may have asked Webster to interview Thomas Eubank, who was then the Commissioner of Patents, about the possibility of securing a patent for his device to lift vessels over shoals.

On February 28 (1849) Webster replied to Lincoln's inquiry: "Mr. Eubank is yet in the South. If the enclosed statement of the claim will satisfy our friends I have reason to think a patent may be obtained."

With the convening of the short session of Congress, Lincoln left Springfield on November 26, 1848 carrying his red cedar wood model to Washington with a firm determination to get his invention patented. On this trip he traveled on a steamer via Saint Louis down the Mississippi and up the Ohio. This trip undoubtedly gave him further opportunity to observe the practicability of his invention. His first step was to secure the services of a patent lawyer, Mr. Zenas C. Robbins. Robbins had formerly lived in Saint Louis and had personally observed the difficulities of shallow water navigation on the Mississippi River. Apparently Lincoln was able to make the personal acquaintence of Robbins through Elihu B. Washburne. A few days after Washburne and Lincoln had called at the home of Mr. and Mrs. Robbins the patent lawyer asserted that "Mr. Lincoln walked into my office one morning with a model of a western steamboat under his arm. After a friendly greeting he placed his model on my office table and proceeded to explain the principle embodied therein that he believed to be his own invention, and which, if new, he desired to secure



Scale drawing of Lincoln's invention showing side view and cross section. The original drawing is now missing from the National Archives file.



Scale model of Lincoln's invention embodying all of the specifications for construction, except for the application of steam power to shaft C to inflate the air chambers. From the Carl W. Schaefer Collection.

by letter patent. During my former residence in St. Louis, I had made myself thoroughly familiar with everything appertaining to the construction and equipment of the flat-bottomed steamboats that were adapted to the shallow rivers of our Western and Southern states, and therefore, I was able speedily to come to the conclusion that Mr. Lincoln's proposed improvement of that class of vessel was new and patentable, and I so informed him. Thereupon he instructed me to prepare the necessary drawings and paper and prosecute an application for a patent for his invention at the United States Patent Office. I complied with his instructions and in due course of proceedings procured for him a patent that fully covered all the distinguishing features of his improved steamboat. The identical model that Mr. Lincoln brought to my office can be seen in the United States Patent Office. . . .

"Mr. Lincoln's invention provided for placing under the guards of the boat, buoyant chambers, expansible buoyant chambers, made of some waterproof material, with the parts so arranged and connected with the engines that when the boat got aground the whole power of the boilers could be exerted to depress these chambers, and more than double the width of the boat and of course raise the boat in the water. Then the power could be applied to the wheels and the boat could again go on its way rejoicing."

Robbins asked Lincoln to sign a copy of a printed form addressed to the Commissioner of Patents, Edmund Burke, which was filed on March 10, 1849. The words printed in italics were filled in by hand:

"Application for Patent"
on an Improved Method of Lifting Vessels over Shoals
March 10, 1849
To the Commissioner of Patents.

"The Petition of *Abraham Lincoln, of Springfield in the county of Sangamon & State of Illinois* Respectfully represents.

"That your petitioner has invented, a *new and improved manner of combining adjustable buoyant chambers with steam boats or other vessels* which has not, as *he* verily believes been heretofore used or known, and that he *is* desirous that Letters Patent of the United States may be granted to *him* therefor, securing to *him* and to *his* legal representatives, the exclusive right of making and using, and of vending to others the privilege to make or use, the same, agreeably to the provisions of the Acts of Congress in that case made and provided, *he* having paid *thirty* dollars (Robbins later recalled that Lincoln paid $50, of which $20 may have been the patent attorney's fee) into the Treasury of the United States, and complied with other provisions of the said Acts.

"And *he* hereby authorises and empowers *his* Agent and Attorney, Z. C. Robbins, to alter or modify the within specification and claim as he may deem expedient, and to receive *his* patent; and also to receive back any moneys which he may be entitled to withdraw, and to receipt for the same.

A. Lincoln."

The required oath was administered by I. L. Smith, a justice of the peace: "On this *10th*, day of *March 1849* before the subscriber, a *Jus Peace* in and for the said *county* personally appeared the within named *Abraham Lincoln* and made solemn *oath* according to law, that *he believes himself* to be the original and first inventor of the within described *improved manner* of *combining buoyant chambers with steam boats or other vessels and* that *he does* not know or believe that the same has been before used or known; and that *he is a* citizen of the United States.

I. L. Smith, JP"

(To be continued in the February, 1958 issue.)

McMurtry's Speaking Itinerary

Amarillo, Texas. Jan. 8, 9, 10, 1958.
El Paso, Jan. 13, 14.
San Antonio, Jan. 16, 17.
Corpus Christi, Jan. 20, 21.
Houston, Jan. 22, 23.
Beaumont, Jan. 24, 27.
Dallas, Jan. 28, 29.
Fort Worth, Jan. 30, 31.
*Cleveland, Ohio, Feb. 6.
*Philadelphia, Pa., Feb. 8.
Minneapolis, Minn., Feb. 10.
Madison, Wis., Feb. 11, 12.
Milwaukee, Feb. 13, 14.
*Chicago, Ill., Feb. 18, 19.
Peoria, Feb. 20, 21.
Toledo, Ohio, Feb. 25, 26, 27.
Dayton, March 3, 4.
Columbus, March 5, 6, 7.

The persons who might be interested in learning of the schedule in detail in the various cities named above, may contact the general agency offices of the Lincoln National Life Insurance Company.

*Special engagements not arranged by general agent.

Specifications and Drawings

Specifications and scale drawings forming part of Letters patent No. 6,469, dated May 22, 1849, application filed March 10, 1849, Abraham Lincoln, manner of Buoying Vessels, may be secured from Department of Commerce, United States Patent Office, Washington, 25, D. C., for twenty-five cents.

CUMULATIVE BIBLIOGRAPHY—1957

Selections approved by a Bibliography Committee consisting of the following members: Arnold Gates, 288 New Hyde Park Road, Garden City, N. Y.; Carl Haverlin, 2 Masterson Road, Bronxville, N. Y.; E. B. Long, 708 North Kenilworth Ave., Oak Park, Ill.; Richard F. Lufkin, 45 Milk Street, Boston, 9, Mass.; Robert L. Kincaid, Lincoln Memorial University, Harrogate, Tenn.; Ralph G. Newman, 18 East Chestnut Street, Chicago 11, Ill.; William H. Townsend, 310 First National Bank Bldg., Lexington 3, Ky.; and Clyde C. Walton, Jr., Illinois State Historical Library, Springfield, Ill.

New items available for consideration may be sent to the above addresses or to the Lincoln National Life Foundation.

RIDDLE, DONALD W. **1957-25**

Congressman/Abraham/Lincoln. Donald W. Riddle/University of Illinois Press, Urbana, 1937.
Book, cloth, 6¼" x 9¼", vii pp., 280 pp., price $4.50.

NEWMAN, RALPH G. **1957-26**

Picture Guide Book of/New Salem State Park/Lincoln's New Salem, Illinois/(beardless photo)/(sketch of post office)/First Berry-Lincoln Store/Now U. S. Post Office/Lincoln's New Salem, Illinois/Abraham Lincoln served as postmaster of New Salem from May 7, 1833 to May 30, 1836/(Cover title).
Pamphlet, paper, 8" x 5¼", (18) colored photographs by Curt Teich & Co., Inc., (12) pages of explanatory material, (1) map & explanation by Ralph G. Newman, price 50c.

D'AULAIRE, INGRI & PARIN, EDGAR **1957-27**

Abraham/Lincoln/(drawing)/by Ingri & Edgar Parin D'Aulaire/Doubleday & Company, Inc., Garden City, New York/ (Copyright (C) 1939, 1957, by Doubleday & Company, Inc. All rights reserved. Lithographed in the United States of America.
Brochure, stiff boards, linen backstrip, 9¼" x 12½", unpaged, illustrations in color, price $3.00.

SCOTT, HUGH **1957-28**

Another reminder of Lincoln/The Loyal Legion Library/Museum on Pine street has famous/collection on Civil War President/Copyright photographs and text reproduced by special permission of The Philadelphia Inquirer and gratefully acknowledged/By Hugh Scott/(Caption title).
Folder, paper, 10½" x 13", (4) pp., illus.

SHELTON, HARRIET M. **1957-29**

Abraham / Lincoln/Returns/by Harriet M. Shelton/The Evans Publishing Company/New York City—1957.
Book, cloth 5¾" x 8½", xiii, 232 pp., fr., price $3.95.

WILLIAMS, T. HARRY **1957-30**

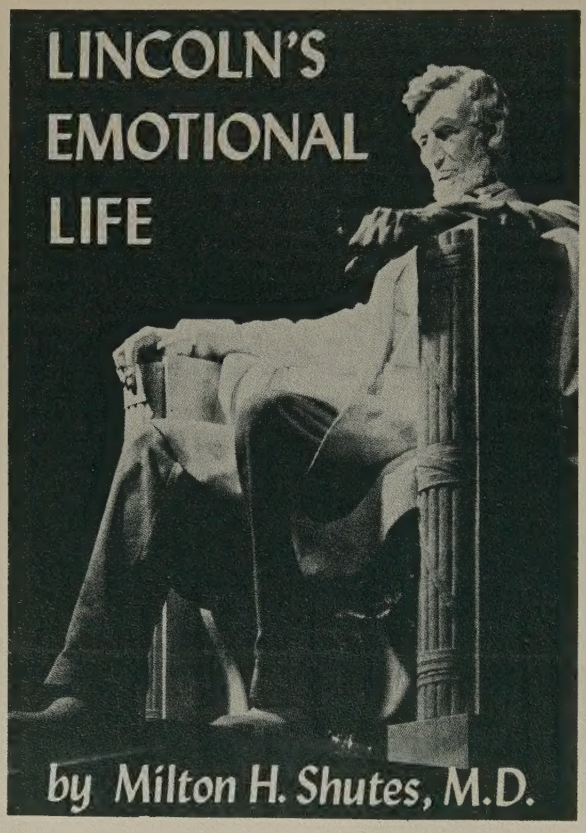
Abraham Lincoln/Selected Speeches,/Messages, and Letters/(sketch of Lincoln/Edited with an introduction and/notes by T. Harry Williams/New York Rinehart & Co., Inc.,/Toronto.
Book, flexible boards, 5" x 7½", xxi, 290 pp., price 75c.

LINCOLN MEMORIAL UNIVERSITY **1957-31**

Lincoln Memorial University Press/Spring 1957/Vol. 59, No. 1/ Lincoln Herald/A Magazine devoted to historical research in the field of Lincolniana and the Civil War, and to the promotion of Lincoln Ideals in American Education.
Pamphlet, flexible boards, 7" x 10", 44 pp., ill.

GUNDERSON, ROBERT G. **1957-32**

Reprinted from the Journal of Southern History/Volume XXII, November 1956, Number 4/William C. Rives and the "Old Gentlemen's Convention"/by Robert G. Gunderson/(Caption title).
Pamphlet, paper, 6¼" x 9½", 459-476 pp.



HOUSER, MARTIN LUTHER **1957-33**

Lincoln's Education/and other Essays/by/M. L. Houser/Bookman Associates/New York.
Book, cloth, 5½" x 8¾", 356 pp., fr., price $4.00.

INDIANA, DEPARTMENT OF CONSERVATION **1957-34**

Lincoln State Park/and Nancy Hanks Lincoln State Memorial/Lincoln City, Indiana/Established 1932/1,540 Acres/(Caption title).
Folder, paper, 6" x 9", (4) pp., illus.

HOLT, HALLIE M. **1957-35**

The President/(sketches)/The Strange Destiny of Lincoln/The Railsplitter/(sketch)/(Cover title).
Pamphlet, paper, 5½" x 8½", (12) pp., illus., The Sangamon Press, Springfield, Illinois.

LINCOLN MEMORIAL UNIVERSITY **1957-36**

Lincoln Memorial University Press/Summer 1957/Vol. 59, No. 2/Lincoln Herald/A Magazine devoted to historical research in the field of Lincolniana and the Civil War, and to the promotion of Lincoln Ideals in American Education.
Pamphlet, flexible boards, 7" x 10", 36 pp., illus.

(NIMTZ, F. JAY) **1957-37**

85th Congress/1st Session/H. J. Res. 351/In the Senate of the United States/August 21, 1957/Read twice and referred to the Committee on the Judiciary/Joint Resolution/To establish a Lincoln Sesquicentennial Commission/(Caption title).
Pamphlet, paper 7½" x 11", 7 pp.

UNITED STATES **1957-38**

Public Law 85-262/85th Congress, H. J. Res. 351/September 2, 1957/Joint Resolution 71 Stat. 587./To establish a Lincoln Sesquicentennial Commission./(Caption title).
Folder, paper, 6" x 9", 3 pp.

SHUTES, MILTON H. **1957-39**

Lincoln's Emotional Life/By/Milton H. Shutes, M. D./(device)/Dorrance & Company/Philadelphia.
Book, cloth, 5¼" x 7½", 222 pp., fr., price $3.00.

WORKMAN, DONNA E. **1957-40**

Abraham Lincoln said: . . . /Carl Sandburg says: . . ./(Caption title).
Folder, paper, one sheet 11" x 19" folded to make 4 sides of printed material. Contains: Greetings and a foreword by the author, 1 double page of quotations by Lincoln, and 1 double page of quotations by Sandburg.

LINCOLN NATIONAL LIFE FOUNDATION **1957-41**

Lincoln Lore/Bulletin of the Lincoln National Life Foundation/Dr. R. Gerald McMurtry, Editor/Published each month by The Lincoln National Life Insurance Company, Fort Wayne, Indiana/Number 1436 October 1957—Number 1438 December 1957/(Caption title).
Folder, paper, 8½" x 11", 4 pp., illus. Number 1436, National Politics—December 1860 . . .; 1437, Some Correspondence Regarding a Missing Copy of the Gettysburg Address . . .; 1438, ". . . . It Is Not Very Probable Illinois Will Go For Taylor". . .